

Application No:10/646,784
Amendment Dated: March 26, 2007
Response to Office Action of October 3, 2006

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AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0050] with the following paragraph:

[0050] The complete sequence nucleotide sequence for MIS is disclosed in U.S. Patent No.5,047,336, which is hereby incorporated by reference. The DNA sequences of this invention are selected from the group consisting of: (a) the DNA sequences

AAGGTCG CGGCAGAGGA GATAGGGGTC TGTCTGAC AAACACCCCA CCTTCCACTC
GGCTCACTTA AGGCAGGCAG CCCAGCCCTT GGCAGCACCC ACGATGCGGG ACCTGCCTCT
CACCAGCCTG GCCCTAGTGC TGTCTGCCCT GGGGGCTCTG CTGGGGACTG AGGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACCACTGG CCTCATCTTC CGAGAAGACT TGGACTGGCC
TCCAGGCATC CCACAAGAGC CTCTGTGCCT GGTGGCACTG GCGGGGACA GCAATGGCAG
CAGCTCCCC CTGCGGGTGG TGGGGCTCT AAGCGCTAT GAGCAGGCTT TCCTGGGGGC
CGTGCAGAGG GCCCGCTGGG GCGCCGAGA CCTGGCCACC TTCGGGTCT GCAACACCGG
TGACAGGCAG GCTGCTTGC CCTCTTACG GCGGCTGGGG GCCTGCTGC GGGACCCTGG
GGGCGAGCG CTGCTGTCC TACACCTGGA GGAAGGTATG TGGGGCCAG CCCCAGCTT
GGCACCGCG TCTTCTTCA GGTGGCCGG GTCTCTAG GGAAGATCAG GGGCTGGCAG
AGCCCCCACC CTGGGCAGGG AGGCTGTGT CTTGTTCTTA GGAAGATCAG GGGCTGGCAG
GGCTGGAAG GTGGGCACCA CACTCTGTCC TGTCCCGAA GCCCAGCTCT TAGACTTGCC
CCTGCTCTGG TGCCAGGAG AGAGCTGCTG CCTTCTCCCC ACCCTGAAG ACGACGCAGG
GCTCGGGGCC AGTGAACCC TTCTTCCAC AGCCCGAGC TGTTCTCAGG GCGCTGGCC
TAAGATACTC CTGCGGGGA AGGGGCTTCA TCGGGCACCC CAACCCAGAG ACCCCAGGGC
GSCAGCCCA CCCACAGCT CAGACGCAGC CCTGCTGCT CCTGCTGCT ACCGCTCCCT
GGCTGCAGGA AGCAGCTAA GAGGGGCACC CTTGTCCCC GCTTGAAGT CCTGTCACAG
TGGCCAGAGC GGCAGGGACA GATCCCAAG ATTCCCGGG GGTGTGGCTT TCAATGGCTC
AGGCTGCCCC TGCTGTCCG GCTGCAGTGA CCTGGGAGCC AACACCCCTG CTGAGGTTC
AGGAGCCCC GCCTGGAGGA GCTGGCCCC CAGAGCTGGC GCTGCTGGT CTGTACCTG
GGCTGSCCC TGAGGTCACT GTGACGAGGG CTGGGCTGCC GGTGCCCCAG GTACCGGGA
GTTGCATGGG SCAGTSCCCG GCGCGTGGC GGGGGCATGA ATTTGTTGCA GGGTCTGCAG
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT GGGAGGAGG GACCGGTAG AGCGGGCTG
GGTAAGCTC CATCCAGCG GGTGAGCCC TGCTCTCCG AGAGCTCTG CCCCTCCGA
GACACCGCT ACCTGGTGT AGCGGTGAC GCGCTGCG GGGCTGGC GGGCTCCGG
CTGGCCTTGA CCTGCGAGC CCGCGGAGG GTAGGTCCG CGTGGAGAG GACGGGAGC
CGGCTGACT GCGCCCGGC CCGCAGCCC TGAGCCAGC GCGTCCCCAC CCACCGCAGA
CTCCCGCTG AGTACCGCCC GGCTGCAGC ACTGCTGTT GCGACGACC ACCGCTGCTT
CACACGATG ACCCCGGCCC TGCTCTGCT GCGCGGCTC GAGCCCGGC CGCTGCTGC
GCACGGCAG CTGGACACCG TGCCCTTCCC GCGCGCCAGG TGCGCGCAG CACCGGACA
CGGGGCAGGA GCGGGCGGG GCGGCGTGC CTGCTGCGG CTCTCAACTC CTCCAATTG
GGTTCAGG CCATCCCGG AACTCGAGGA GTCGCCACCC AGCGCAGACC CCTTCTTGA
GACGCTCAG CCGCTGGTGC GGGCGCTGC GTTCCCCCG GCGCGGCTT CCGCGCTCG
CCTGGCCTG GATCGGAGC CGCTGGCCG CTTCGCGAG GCGCTAGTCA ACCGTCTGA
CCCCGCGCG CTGGAGCGC TACTCGACG CGAGGAGCC CTGCTGCTG TGTGAGGCC
CACTGCGGC ACCACCGGG ATCTGCGCC CTGTCAGAC CCCACGTGG GCGGTGGGC

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CACGCGCCCTG GCGCGCCGCG TGGCTGCTGA ACTGCAAGC3 GCGGCTGCCG AGCTGCGAAG
CCTCCCGGGT CTGCTTCGCG CCACAGCCCC GCTGCTGGCG CGCTGCTCG CGCTCTGCC
AGGAGGCCCC GCGGCTCTCG GCGATCCCTT GCGAGGCTG CTGCTCTGA AGGCGCTGCA
GGGCTTGCGC GTGGAGTGGC GCGGGCGGGA TCCGCGCGGG CCGGCTCGGG CACAGCGCAG
CGCGGGGGCC ACCGCGCGCG ACGGGCGGTG CGCGCTGCGC GAGCTCAGCG TAGACCTCCG
CGCGAGCGC TCGTACTCA TCCCGAGAC CTACCAGGCC AACAAATTGCC AGGGCGTGTG
CGGCTGGCCT CAGTCCGACC SCACCCCGCG CTACGGCAAC CACGTGGTGC TGCTGCTGAA
GATGCAGGCC CGTGGGGCC3 CCTGGGCGCG CCCACCCTGC TGCTGCCCCA CCGCTACGC
GGCAAGCTG CTCATCAGCC TGTCGGAGGA ACGCATCAGC GCGCACCACG TGCCCAACAT
GGTGGCCACC GAGTGTGGCT GCGGTGACC CTTGCGCCCG GCGGACTCCT GCGCGAGGG
TCCGAGCGCG CCCAGCTCG CGCCCTTCC CATATTATT CGGACCCCA GCATCGCCCC
AATAAGACC ASCAAGC

(the sequence of the human gene) (SEQ ID NO:1):

AGCACCC ACGATGCGGG ACCTGCCTCT
CACCAGCCTG GCCCTAGTGC TGCTGCCCT GGGGGCTCTG CTGGGACTG AGGCCCTCAG
AGCAGAGGAG CCAGCTGTGG GCACAGTGG CCTCATCTC CGAGAAGACT TGGACTGGCC
TCCAGGCATC CCACAAGAGC CTCTGTGCTT GGTGGCACTG GCGGGGACA GCPATGGCAG
CAGCTCCCC CTGCGGTGG TGGGGCTCT AGCGCCTAT GAGCAGGCTT TCCTGGG3GC
CGT3CAGAGG GCCGCTGGG GCGCCGAGA CTTGGCCACC TTGGGGTCT GCAACCCGG
TGACAGGCAG CTGCTCTGC CCTCTTACG GCGGCTGGG GCTGCTGCG GGGACCTGE
GGGCGAGCG CTGGTGTCC TACACCTGGA GGAAGTATG TGGGGCCAG CCCAAGCTT
GGCACGCGG TCTTCTTCA GGTGGCCCG GTCTCTAG GGAAGATCAG GGGCTGGCAG
AGCCCCACC CTGGGCAGG AGGCTGTGT CTTGTCTTA GGAAGGTT GCGGTCCGT
GGCTGGAAG CTGGGCAGCA CACTCTGTCC TGTCGCGAA GCCAGCTCT TAGACTTGCC
CCTGCTCGG TGCCAGGAG AGAGCTGCTG CTTCTCCCC ACCCTGAAG ACGACGAGG
GCTCGGGCC AGTGAACCC TTCTTCCAC AGCCCCAGCC TGTCTCAGG GCGCTGGCC
TAAGATACT CCTGCGGGA AGGGGCTTCA TCGGACACC CAACCCAGAG ACCCAGGGC
GGCAGCCCA CCACAGCCT CAGACGAGC CCCTGCTGC CCCTGCGTC ACCGCTCCCT
GGCTGCAGGA AGGCA3TAA GAGGGGCACC CTTGTCCCC GCTTGAAGTC CCCTGCACAG
TGGCCAGAGC GGCAG3GACA GATCCCAAG ATTCCG3GG GGTGTGGCT TCAAT3GCTC
AGGCTCCCC TGCTGTCCG GCTGCAGTGA CTTGGGAGCC AACACCCTCG CTGAGGTTCC
AGGAGCCCC GCTGGAGGA GCTGGCCCC CAGAGCTGCG GCTGCTGGT CTGTA2CTG
GGCTTGGCC TGAGTCACT GTGACGAGG CTGGGCTGCC GGTGCCCCAG GTACCAGGA
GTTGCAATGG GCAGTGCCG GCGGCTGGG G3GGGCATCA ATTTGTGCA GGTCTGCAG
TACTGAGAAC AGCGTAGAAC CAGTGGCGAT G3GAGGAAGG GGACCGGTAG AGCGGGCTG
GGTAAGCTC CATCCAGCG GCTGAGGCC TGGTCTCCG AGAGCCTCTG CCCTCCCGA
GACACCGCT ACTGCTGTT AGCGTGGAC CGCCT3CGG GGGCTG3CG CGGCTCCGG
CTGGCTTGA CCTGCAGCC CCGCGAGAG GTAGGTCCG CGTGGAGAG GACGGGAGC
CGGCTCGACT GCCCGCGGC CCCAGCCCC TGAGCCAGCC GCGTGCCAC CCACCGAGA
CTCCGGCTG AGTACCGCCC GGCTGCAGG ACTGCTGTT GCGACGACC ACCGCTGCTT
CACACGATG ACCCGGCCC TGCTCTGCT GCGC3GTCC GAGCCGCGC CGTGCCTGC
GCACGGCCAG CTGGACACG TGCCCTTCCC GCGGCCAGG TCGCGCAGG CACCGGACA
CGGGGCAGGA GCGGGCGGG GCGGCTGGC CTCGTGGCG CTCTCACTC CTCCAATTGC
GGTTCCAGG CCATCCGCG AACTCGAGGA GTGCGACCC AGCGCAGACC CTTCTTGA
GACGCTCAG CGCTGTGC GGGCGCTGC GTCCCCCG GCGGGGCT CCGCGCGCG

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CCTGGCCCTG GATCCGACG CGCTGGCCGG CTTCGCCAG GGCCTAGTCA ACCTGTCCGA
CCCCGCGGCG CTGGAGCGCC TACTCGACGG CGAGGAGCCG CTGCTGCTGC TGCTGAGGCC
CACTGCGGCC ACCACCGGG ATCTGCGCC CTGCACGAC CCCACGTCGG CGCCGTGGGC
CAGGGCCCTG GCGCGCGCG TGGCTGCTGA ACTGCAAGCG GCGGCTGCCG AGCTGCGAAG
CCTCCCGGGT CTGCTCCGG CCACAGCCCC GCTGCTGGCG CGCCTGCTCG CGCTCTGCC
AGGAGGCCCC GCGGCGCTCG GCGATCCCTT GCGAGCGCTG CTGCTCTGA AGGCGCTGCA
GGGCTGCGC GTGGAGTGGC GCGGCGGGA TCCGCGCGG CCGGCTCGGG CACAGCGCAG
GCGGGGGGCC ACCGCGCGCG ACGGGCGGTG CGCGTGGCG GAGCTCAGCG TAGACCTCCG
CGCGAGGGC TCCGTACTCA TCCCGAGAC CTACCAGGCC ACAATTGCC AGGCGCTGTG
CGGCTGGCCT CAGTCCGACC GCAACCGCG CTACGGCAAC CACGTGGTGC TGCTGCTGAA
GATGCAGGCC CGTGGGCGG CCTGGCGCG CCCACCCTGC TGGTGCCCA CCGCCTACGC
GGGCAAGCTG CTCATCAGCC TGTCGGAGGA ACGCATCAGC GCGCACCAG TGCCCAACAT
GCTGGCCACC GAGTGTGGCT GCGGTGACC CTGCGCCG GCGACTCCT GCCCCAGGG
TCCGAGCGG CCCCAGCTCG CGCCCCCTCC CATATTATT CGGACCCCA GCATCGCCCC
AATAAGACC AGCAAGC

(the sequence of human cDNA) (SEQ ID NO:2);

CAAGGTATG TCCAGGAGG AGATAGGAC CGCCCTGCAC CACAAACAGC TCTGCTCCCT CTTATAAAGT AGGGCAGCCC
AGCCCCTGA
AGCTCCAGG ATGCCCGTC CATCTCTCTC TCTGGCCCTG GTGCTGTGG CCATGGGGGG
TCTGCTGAGG CCAGGAGACC CCAGGGAAGA AGTCTTCAGC ACCTCAGCCT TGCCAGGGA
GCAGGCCACA GGCAGCGGG CACTCATCTT TCAGCAAGCC TGGGACTGGC CACTCTCCAG
TCTCTGGCTG CCAGGAGCC CTCTGGACCC CTGTGCTG GTGACCTGC ATGGGAGTGG
CAACGGGAG AGGGCCCCC TGGGGTGGT GGGGTCTG AGCAGCTACG AGCAGGCCTT
CCTGGAGGCT GTGCGCGCA CCACTGGGG CTTGAGTGAC TTGACCACCT TCGCAGTGTG
CCCCGCTGGC AACGGGAGC CTGTGCTGCC CCACCTGCAG CGGCTGCAGG CATGGCTGGG
GGAGCCCGGG GGGCGGTGGT TGGTGTCTCT GCACCTGAGG GAAGTGACGT GGGAGCCAAC
ACCCTTGCTG AGGTTCCAGG AGCCTCCGCC TGGAGGAGCC AGCCCCCAG AGCTGGCGCT
GCTGGTGGTG TACCAGGGC CTGGCCTGGA GGTCACTGTC ACCGGGGCTG GGCTACCTGG
CACCCAGAGC CTCTGCCTGA CGCGGACTC GGACTTCTG GCCTTGGTGG TGGACCACCC
GGAGGGGGCC TGGCGCCGGC CTGGGTTAGC CTTACCTG CGCGCCGCTG GAAATGGTGC
GTCCTGAGC ACTGCCAGC TGCAGGCGCT GCTGTTGGT GCGGACTCCC GCTGCTTCAC
ACGAAGAGCC CCAGCCCTGT TACTCTTGT GCGGCCCCG TCTTCGGCAC CGATGCCCGC
GCACGCTCG CTGGACTTGG TGCCCTTCCC GCAGCTCAGG GTTCCCCCG AGCCAGAGGA
GGCACCGCCC AGCGCTGATC CTTCTCTGGA GACTCTCAG CGCCTGGTGC GCGCGCTTGC
GGGACCCCG GCGCGAGCT CGCCACCGG GCTGGCTTG GACCCGGGG CACTGGCTGG
TTTCCGCGAG GGCCAGGTCA ACTGTCTGGA CCCGCGGGC CTGGAGCGCC TGCTGACCG
CGAGGAGCCG CTGCTGCTGC TGCTGCCGCC GACGCGAGCC ACCACCGGG TCCCCGAAC
GCCGCAAGGT CCCAAGTCCC CTCTGTGGG CGCGGACTA GCGCGCGGG TGCTGCCGA
GCTTCAGCG GTGGCCGCG AGCTGCTGC CTCCCGGG CTGCTCCAG CTGCCCACT
GCTGCTGGC CGCTGCTGG CACTGTGCC GGGAAACCA GACAGCCCC GCGGCCCT
GCGCGCGCT CTGCTGCTCA AAGCGCTGCA GGGCTGCGC GCTGAGTGGC GCGGGCGGA
GCGGAGCGC TCTGCACGG CGCAGCGAG GCGCGGGCC GCGGCTGCAG ACGGCGCTG
CGCTCTGCT GAGCTGAGCG TAGACCTGCG GCGGAGCGC TGGTGTCTA TCCCCGAGC
ATAACAGGCC AACAACTGCC AGGGGCGCT GCGCTGGCT CAGTCGAGC GCAACCGCG
CTACGGCAAC CACGTGGTGC TGCTGTAAA GATGCAGGCC GCGGGGCCA CCTGGCGCG

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CCCGCCCTGC TGTGTGCCCA CAGCCTACAC CGGCAAGCTC CTCATCAGCC TGTCGGAGGA
GCGCATCAGT GCGCACCACG TCCCAAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC
TGCGGCGGTG CTCCTCGTGC TGCCCCGSCC CGTATTATT CGGACCCCGT CATTGCCCCA
TAAACACGG GAAGGC

(the sequence of the bovine gene) (SEQ ID NO:3);

ASCTCCAGG ATGCCCGTC CATCTCTCTC TCIGGCCCTG GTGCTGTGG CCATGGGGG
TCTGCTGAGG CCAAGGACCC CAGGGAAGA AGTCTTCAGC ACCTCAGCTI TGCCAGGGA
GCAGGCCACA GGCAGCGGG CACTCATCTT TCAGCAAGCC TGGACTGGC CACTCTCCAG
TCTCTGGCTG CCAAGCAGCC CTCTGACCC CTTGTSCCTG GTGACCTGC ATGGAGTGG
CAACGGGAGC AAGGCCCCCT TGCGGTTGGT GGGGGTCTG AGCAGCTAGC AGCAGGCCCT
CCTGGAGGCT GTGCGGCCCA CCCACTGGGG CTGASTGAC TTGACCACCT TCGAGTGTG
CCCCGTGGC AACGGGACG CTGTGCTGCC CCACCTGCAG CCGCTGCAGG CATGGCTGGG
GGAGCCGGG GGGCGGTGGC TGGTGGTCTT GCACCTGGAG GAAGTGACCT GGGAGCCAC
ACCTTGCTG AGGTTCAGG AGCCTCCGCC TGGAGGAGCC AGCCCCCAG AGCTGGCGCT
ECTGTGGTG TACCCAGGCG CTGGCTGGA GGTCACTGTC ACCGGGGCTG GGTACCTGG
CACCCAGAGC CTCTGCCTGA CCGCGGACTC GGAATTCTTG GCTTGGTGG TGGACCACC
GGAGGSGGCC TGGCGCCGCG CTGGCTAGC CTTACCTTG CGCGCGCTG GAATGCTGC
GCTCTGAGC ACTGCCAGC TGCAGCGCT GCTGTTCGGT GCGACTCCC GTGCTTCA
ACGAAAGACC CAGCCCTGT TACTCTGCT GCGCGCCCG TCTTCGGAC CGATGCCCG
GCACGTCGG CTGACTTGG TGCCCTTCCC GCAGCCAGG GCTTCCCCG AGCCAGAGG
GGCAGCGCC AGCGCTGATC CTTCTGGA GACTCTCAG CGCTGGTGC GCGGCTTGC
GGGACCCCG GCGGAGGCT CGCCACGCG ECTGGCTTG GACCGGGCG CACTGGCTG
TTTCCGCGAG GGCAGGTCA ACCTGTGGA CCGCGCGCC CTGGAGCGC TGCTGGACG
CGAGGAGCG CTGCTGTGCT TGCTGCCCG GACGGCAGCC ACCACGGGG TCCCCGCAAC
GCGCAAGGT CCAAGTCCC CTCTGTGGG CGCGGACTA GCGCGCGGG TGGCTGCCA
GCTTACGGG GTGCGCGCG AGCTGCGTGC CTTCCGGGG CTGCTCCAG CTGCCCCACC
GCTGTGGCG CGCTGTGCT CACTGTGCC GGAACCCCA GACAGCCCC GCGGCCGCT
GCGCGCGCT CTGCTGTCA AGCGCTGCA GGGCTGCGC GCTGAGTGG CCGGGCGGA
GCGGAGCGC TCTGCACGG CCGAGCGCAG CGCGGGGCC GCGCTGCAG ACGGGCGTG
CGCTCTGCT GAGCTGAGC TAGACCTGCG GCGGAGCGC TCGGTGCTCA TCCCCGAGC
ATACCAGGC AACAACTGCC AGGGGGCTG CGGCTGGCT CAGTCGGAC GCAACCGCG
CTACGGCAAC CAGTGTGCT TGCTGCTAAA GATGACGGC CGCGGCGCA CCTGGCGCG
CCCGCCCTGC TGTGTGCCA CAGCCTACAC CGGCAAGCTC CTCATCAGC TGTCCGAGG
GCGCATCAGT GCGCACCACG TCCCAAACAT GGTGGCCACC GAATGCGGCT GCCGGTGACC
TGCGGCGGTG CTCCTCGTGC TGCCCCGSCC CGTATTATT CGGACCCCGT CATTGCCCCA
TAAACACGG GAAGGC

(the sequence of bovine cDNA) (SEQ ID NO:4); and

(b) DNA sequences which hybridize to the aforementioned DNA sequences and which code on
expression for a human MIS-like polypeptide or a bovine-like polypeptide and preferably have a
substantial degree of homology (more preferably, at least about 70% homology and most preferably at
least about 80% homology) and the aforementioned DNA sequences; and

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(c) DNA sequences which code on expression for a polypeptide code for on expression by any of the foregoing DNA sequences. Recombinant DNA molecules containing these DNA sequences, hosts transformed with them and MIS-like polypeptides coded for on expression by them are also part of this invention.

The DNA sequences, recombinant DNA molecules, hosts and processes of this invention enable the production of MIS-like polypeptides for use in the treatment of ovarian cancer and other suitable cancers.

Also within the scope of the present invention are the polypeptide selected from the group consisting of

MRDLPLTSLALVLSALGALLGTEALRAEPAVGTSGLI FREDLD
WPPGIPQEPCLCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQARWGPRDLATFGV
CNTGDRQAALPSLRRLGAWLRDPGGQRLVVLHLEEV TWEPTPSLRFOEPPPGGAGPPE
LALLVLYPGPGPEVTVTRAGLPGAQSLCPSRDTRYLVLA VDRPAGAWRGSGLALTLP
RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA PLPAHGQLDTPFPFPPRP
SAELEESPPSADPFLETLTRLVRALRVPPPARASAPRLALD PDALAGFPQGLVNLS DPA
ALERLLDGEEPLLLLLRPTAATTGDPAPLHDPTSAPWAT ALARRVAAELQAAAAELRS
LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLKALQ GLRVEWRGRDPRGPGRAG
RSAGATAADGPCALRELSVDLRAKRSVLI PETYQANNCQGVCGWPQSDRNPRYGNHVV
LLLKMQARGAALARPPCCVPTAYAGKLLISLSEERISAH HVPNMVATECGCR

(the complete amino acid sequence of human MIS protein) (SEQ ID NO: 5);

RAEPAVGTSGLI FREDLD
WPPGIPQEPCLCLVALGGDSNGSSSPLRVVGALSAYEQAF LGAVQARWGPRDLATFGV
CNTGDRQAALPSLRRLGAWLRDPGGQRLVVLHLEEV TWEPTPSLRFOEPPPGGAGPPE
LALLVLYPGPGPEVTVTRAGLPGAQSLCPSRDTRYLVLA VDRPAGAWRGSGLALTLP
RGEDSRLSTARLQALLFGDDHRCFTRMTPALLLLPRSEPA PLPAHGQLDTPFPFPPRP
SAELEESPPSADPFLETLTRLVRALRVPPPARASAPRLALD PDALAGFPQGLVNLS DPA
ALERLLDGEEPLLLLLRPTAATTGDPAPLHDPTSAPWAT ALARRVAAELQAAAAELRS
LPGLPPATAPLLARLLALCPGGPGGLGDPLRALLLKALQ GLRVEWRGRDPRGPGRAG

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RSAGATAADGPCALRELSVDLRAERSVLIPETYQANNCQGVCGWPQSDRNPYGNHVV

LLKMQARGAALARPPCCVPTAYAGKLLISLSEERISAHVPMNVATECGCR

(the amino acid sequence of mature human MIS protein) (SEQ ID NO: 6):

MPGPSLSLALVLSAMGALLRPGTPREEVFSTALPREQATGSGA

LIFQQAWDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVR

RTHWGLSDLTTFAVCPAGNGQPVLPHLQRLQAWLGEPPGGRWLVVLHLEEVTTWEPTPLL

RFQBPFGGASPELALLVVYPGPGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPE

GAWRPGLALTLRRRGNGALLSTAQLQALLFGADSRCPTRKTPALLLLLPARSSAPMP

AHGRDLVFPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPARASPPRLALDPGA

LAGFPQGQVNLSDPAALERLLDGEEPLLLLLPPTAATTGVPATPQGPKSPLWAAGLAR

RVAEELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPPGGLRALLLLKALQGLR

AEWRGRERSGSARAQRSAGAAAADGPCALRELSVDLRAERSVLIPETYQANNCQGACG

WPQSDRNPYGNHVVLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPM

NVATECGCR

(the complete amino acid sequence of bovine MIS protein) (SEQ ID NO: 7):

REEVFSTALPREQATGSGA

LIFQQAWDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVR

RTHWGLSDLTTFAVCPAGNGQPVLPHLQRLQAWLGEPPGGRWLVVLHLEEVTTWEPTPLL

RFQEPFGGASPELALLVVYPGPGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPE

GAWRPGLALTLRRRGNGALLSTAQLQALLFGADSRCPTRKTPALLLLLPARSSAPMP

AHGRDLVFPFPQPRASPEPEEAPPSADPFLETTLRLVRLAGPPARASPPRLALDPGA

LAGFPQGQVNLSDPAALERLLDGEEPLLLLLPPTAATTGVPATPQGPKSPLWAAGLAR

RVAEELQAVAAELRALPGLPPAAPLLARLLALCPGNPDSPPGGLRALLLLKALQGLR

AEWRGRERSGSARAQRSAGAAAADGPCALRELSVDLRAERSVLIPETYQANNCQGACG

WPQSDRNPYGNHVVLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHVPM

NVATECGCR

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(the amino acid sequence of mature bovine MIS protein) (SEQ ID NO: 8); and

MIS-like polypeptides related thereto.

The C- terminal amino acid and nucleotide sequences for bovine MIS are shown in **FIG. 17** of U.S. Patent No. 5,661, 126, which is hereby incorporated by reference in its entirety. Fig. 17 shows the amino acid (SEQ ID NO:2, herein referred to as SEQ ID NO:9) and nucleotide (SEQ ID NO:1, herein referred to as SEQ ID NO:10) sequences of bovine MIS C-fragment, having about 109 amino acids. The C-terminal amino acid and nucleotide sequences for human MIS are shown in **FIG. 18** of U.S. Patent No. 5,661, 126. Fig 18 shows the amino acid (SEQ ID NO:4, herein referred to as SEQ ID NO:11) and nucleotide (SEQ ID NO:3, herein referred to as SEQ ID NO:12) sequences of human MIS C-terminal fragment, having about 109 amino acids. A comparison of the amino acid sequence for human and bovine MIS, showing the - and C- terminal domains is shown in Cate et al., Handbook of Experimental Pharmacology 95/II: 184, edited by M.B. Spoon and A.B. Roberts, Springer-Verlag Berlin Heidelberg (1990), which are hereby incorporated by reference.

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